What is claimed is:

1. A synchronization establishing apparatus in a spectrum spread communication system, comprising:

a search section which calculates correlation values from a received spectrum spread signal, calculates power values as addition values of symbols corresponding to said correlation values and power addition values of said power values, and selects larger ones of said power addition values to output together with timing data corresponding to said selected larger power addition values, one of said symbols and said power values being corrected in phase based on phase change quantities;

a frequency offset estimating section which estimates frequency offsets from one of said correlation values and said power values and demodulation timing data, and calculates said phase change quantities from the estimated frequency offsets to output to said search section; and

a demodulation path selecting section which selects path timings from said timing data based on said selected larger power addition values and outputs said demodulation timing data indicative of said path timings to said frequency offset estimating section.

2. The synchronization establishing apparatus according to claim 1, wherein said search section

comprises:

a synchronizing circuit which calculates said correlation values from said received spectrum spread signal to output to said frequency offset estimating section, and calculates said power values as in-phase addition values of said symbols corresponding to said correlation values while correcting phases of said symbols based on said phase change quantities; and

a path search section which calculates said power addition values of said power values, and selects larger ones of said power addition values to output together with said timing data corresponding to said selected larger power addition values.

3. The synchronization establishing apparatus according to claim 2, wherein said synchronizing circuit comprises:

a signal converting section which converts said received spectrum spread signal into a baseband signal;

a sampling and holding circuit which samples and holds said baseband signal to output a sampling signal;

a correlation unit which calculates said correlation values from said sampling signal; and

a symbol integrating unit which inversely modulates said symbols with predetermined data and

calculates said power values as said in-phase addition values of said symbols values while correcting phases of said symbols based on said phase change quantities.

4. The synchronization establishing apparatus according to claim 1, wherein said search section comprises:

a synchronizing circuit which calculates said correlation values from said received spectrum spread signal to output to said frequency offset estimating section, and calculates said power values of said symbols;

a slot integrating unit which calculates said power addition values of said power values while correcting phases of said symbols based on said phase change quantities; and

a path search section which selects larger ones of said power addition values to output together with said timing data corresponding to said selected larger power addition values.

5. The synchronization establishing apparatus according to claim 4, wherein said synchronizing circuit comprises:

a signal converting section which converts said received spectrum spread signal into a baseband signal;

a sampling and holding circuit which samples and holds said baseband signal to output a sampling signal;

an integrating unit which calculates said correlation values from said sampling signal; and

a symbol integrating unit which inversely modulates said symbols with predetermined data and calculates said power values of said symbols.

6. A method of establishing synchronization in a spectrum spread communication system, comprising:

(a) calculating correlation values from a received spectrum spread signal;

(b) calculating power values as addition values of symbols corresponding to said correlation values and power addition values of said power values, one of said symbols and said power values being corrected in phase based on phase change quantities;

(c) selecting larger ones of said power addition values to output together with timing data corresponding to said selected larger power addition values;

(d) estimating frequency offsets from one of said correlation values and said power values and demodulation timing data to produce said phase change quantities from the estimated frequency offsets; and

(e) selecting path timings from said timing

data based on said selected larger power addition values such that said demodulation timing data indicative of said path timings are produced.

7. The method according to claim 6, wherein said (d) estimating includes:

estimating said frequency offsets from said correlation values and demodulation timing data to produce said phase change quantities from the estimated frequency offsets,

said (b) calculating includes:

adding said symbols corresponding to said correlation values while correcting phases of said symbols based on said phase change quantities, to produce said power values; and

adding said power values to produce said power addition values.

8. The method according to claim 6, wherein said (d) estimating includes:

estimating said frequency offsets from said power values and demodulation timing data to produce said phase change quantities from the estimated frequency offsets,

said (b) calculating includes:

adding said symbols corresponding to said correlation values to produce said power values; and

adding said power values while correcting phases of said power values based on said phase change quantities, to produce said power addition values.

9. A receiver in a spectrum spread communication system, comprising:

m (m is an integer larger than 1) search section, each of which calculates correlation values from a received spectrum spread signal, calculates power values as addition values of symbols corresponding to said correlation values while correcting phases of said symbols based on phase change quantities, calculates power addition values of said power values, and selects larger ones of said power addition values to output together with timing data corresponding to said selected larger power addition values;

a frequency offset estimating section which estimates frequency offsets from said correlation values for a corresponding one of said m search sections and demodulation timing data and calculates said phase change quantities from the estimated frequency offsets to output to said corresponding search section; and

a demodulation path selecting section which selects path timings from said timing data based on said selected larger power addition values for each of

said m search sections and outputs said demodulation timing data indicative of said path timings to said frequency offset estimating section corresponding to said search section.

10. The receiver according to claim 9, wherein each of said m search sections comprises:

a synchronizing circuit which calculates said correlation values from said received spectrum spread signal to output to said frequency offset estimating section, and calculates said power values as in-phase addition values of said symbols corresponding to said correlation values while correcting phases of said symbols based on said phase change quantities; and

a path search section which calculates said power addition values of said power values, and selects larger ones of said power addition values to output together with said timing data corresponding to said selected larger power addition values.

11. The receiver according to claim 10, wherein said synchronizing circuit comprises:

a signal converting section which converts said received spectrum spread signal into a baseband signal;

a sampling and holding circuit which samples and holds said baseband signal to output a sampling

signal;

a correlation unit which calculates said correlation values from said sampling signal; and

a symbol integrating unit which inversely modulates said symbols with predetermined data and calculates said power values as said in-phase addition values of said symbols values while correcting phases of said symbols based on said phase change quantities.

12. A receiver in a spectrum spread communication system, comprising:

m (m is an integer larger than 1) search section, each of which calculates correlation values from a received spectrum spread signal, calculates power values as addition values of symbols corresponding to said correlation values, calculates power addition values of said power values while correcting phases of said power values based on phase change quantities, and selects larger ones of said power addition values to output together with timing data corresponding to said selected larger power addition values;

a frequency offset estimating section which estimates frequency offsets from said correlation values for a corresponding one of said m search sections and demodulation timing data and calculates said phase change quantities from the estimated

frequency offsets to output to said corresponding search section; and

a demodulation path selecting section which selects path timings from said timing data based on said selected larger power addition values for each of said m search sections and outputs said demodulation timing data indicative of said path timings to said frequency offset estimating section corresponding to said search section.

13. The receiver according to claim 12, wherein each of said m search sections comprises:

a synchronizing circuit which calculates said correlation values from said received spectrum spread signal to output to said frequency offset estimating section, calculates said power values of said symbols;

a slot integrating unit which calculates said power addition values of said power values while correcting phases of said power values based on said phase change quantities; and

a path search section which selects larger ones of said power addition values to output together with said timing data corresponding to said selected larger power addition values.

14. The receiver according to claim 13, wherein said synchronizing circuit comprises:

a signal converting section which converts said received spectrum spread signal into a baseband signal;

a sampling and holding circuit which samples and holds said baseband signal to output a sampling signal;

a correlation unit which calculates said correlation values from said sampling signal; and

a symbol integrating unit which inversely modulates said symbols with predetermined data and calculates said power values as said in-phase addition values of said symbols.